DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017491
Date Inspected: 13-Oct-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC)

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang and Zhu Zhong Hai

CWI Present:	☑ Yes	☐ No		**Inspected CWI report:**	☐ Yes	☐ No	☑ N/A	
Rod Oven in Use:	☑ Yes	☐ No	☐ N/A	**Electrode to specification:**	☑ Yes	☐ No	☐ N/A	
Weld Procedures Followed:	☑ Yes	☐ No	☐ N/A	**Qualified Welders:**	☑ Yes	☐ No	☐ N/A	
Verified Joint Fit-up:	☐ Yes	☑ No	☐ N/A	**Approved Drawings:**	☑ Yes	☐ No	☐ N/A	
Approved WPS:	☑ Yes	☐ No	☐ N/A					
Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A					

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 10AE to 10BE (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs after snug tightening of bolts for the Segment 10AE to Segment 10BE between Panel Point (PP) 88 to PP 89 at the following locations:

Work Point E1 towards Work Point E3 (Side Panel Bike Path Side) total 19 T-Ribs.

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the

Lead Inspector and Engineer for review and disposition.

Segment 10AW to 10BW (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs after snug tightening of bolts for the Segment 10AW to Segment 10BW between Panel Point (PP) 88 to PP 89 at the following locations:

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side) total 19 T-Ribs.

Work Point W4 towards Work Point W3 (Bottom Panel) total 18 T-Ribs.

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10AW and Segment 10BW (Cope Holes)

This QA Inspector performed Dimension Control Inspection for the Segment 10AW and Segment 10BW and measured the Cope hole dimensions located at the Longitudinal Diaphragms (East side) at the following locations:

Segment 10AW at Panel Point (PP) 88 at east side of work point W3 and work point W4.

Segment 10BW at PP 92 at east side of work point W3 and work point W4.

The QA Inspector measured the cope hole dimensions using a 150mm steel ruler.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10AW (Re-entrant Corner)

This QA Inspector performed Dimension Control Inspection for the Segment 10AW at the following locations:

The re-entrant corners at the Floor Beam vertical flange radius were verified and measured at Panel Points (PP) 88 on the Counter Weight side and Cross Beam side, east and west side of Floor Beam. The QA Inspector measured the radius of reentrant corner using a pre-cut 25mm and 50mm template.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10BW (Re-entrant Corner)

This QA Inspector performed Dimension Control Inspection for the Segment 10BW at the following locations:

The re-entrant corners at the Floor Beam vertical flange radius were verified and measured at Panel Points (PP) 92 on the Counter Weight side and Cross Beam side, east and west side of Floor Beam. The QA Inspector measured the radius of reentrant corner using a pre-cut 25mm and 50mm template.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 11BW

This QA Inspector observed the in-process welding by Flux Cored Metal Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW11-025. The welder identification was 053486 and observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-B-T-2231T. The piece mark was identified as the counter weight connection plate, at work point W2.

Segment 10CE

This QA Inspector observed the in-process fillet welding by Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as SSD27-PP93-221. The welder identification was 050289 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-P-2114-Tc-U4b-FCM-1. The piece mark was identified as partial height diaphragm.

Segment 10CE

This QA Inspector observed the in-process fillet welding by Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as SSD27-PP93-117/118. The welder identification was 040378 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-P-2114-Tc-U4b-FCM-1. The piece mark was identified as partial height diaphragm.

Segment 10CE

This QA Inspector observed the in-process fillet welding by Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as SSD27-PP93-005/006. The welder identification was 044504 and observed welding in the 3F (Vertical) position using approved Welding Procedure Specification WPS-B-P-2113-FCM-1. The piece mark was identified as partial height diaphragm.

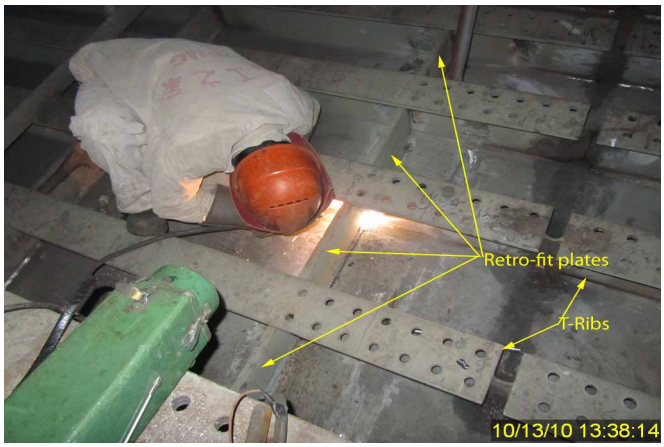
Segment 10BE

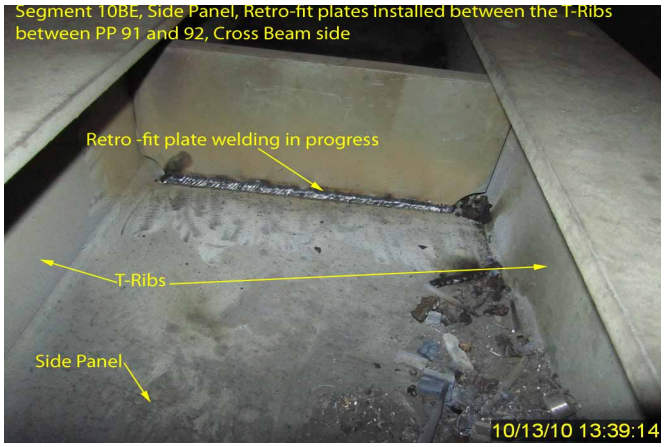
This QA Inspector observed the in-process fillet welding by Flux Cored Arc Welding (FCAW) process. The Weld

joint was designated as Retrofit-B1-10BE-039. The welder identification was 040581 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-P-2314-Tc-P5. The piece mark was identified as the retro-fit plates installed at side panel, Cross Beam side.

Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer